

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	"10991560"	US-PGPUB; USPAT	OR	ON	2007/11/26 13:34
L2	1	"10991560" and (uv ultraviolet)	US-PGPUB; USPAT	OR	ON	2007/11/26 13:34
L3	96	concentration with (si donor silicon) same (current with block\$3) same n	US-PGPUB; USPAT	OR	ON	2007/11/26 14:56
L4	5	concentration with (si donor silicon) same (current with block\$3) same n and cladding same gan and @ad<="20030916"	US-PGPUB; USPAT	OR	ON	2007/11/26 15:08
L7	9	concentration with (si donor silicon) same (current with block\$3) and gan and n same cladding	US-PGPUB; USPAT	OR	ON	2007/11/26 15:51
S1	21	(plasma plasmoid) same lobe and (deposit\$4 etch\$4) and dens\$ same (plasma plasmoid)	USPAT	OR	OFF	2006/08/08 15:03
S2	1139	plasma and ald	USPAT	OR	OFF	2006/08/04 14:34
S3	21	(plasma plasmoid) same lobe and (deposit\$4 etch\$4) and dens\$ same (plasma plasmoid)	USPAT	OR	OFF	2006/08/04 15:40
S4	42	(plasma plasmoid) same lobe and (deposit\$4 etch\$4) and dens\$ same (plasma plasmoid)	US-PGPUB; USPAT	OR	ON	2006/08/04 15:41
S5	17	(plasma plasmoid) same lobe and (deposit\$4 etch\$4) and dens\$ same (plasma plasmoid) same lobe\$	US-PGPUB; USPAT	OR	ON	2006/08/04 15:44
S6	0	asymetric with plasma same dens\$ and deposit\$	US-PGPUB; USPAT	OR	ON	2006/08/04 15:44
S7	0	asymetric\$ with plasma same dens\$ and deposit\$	US-PGPUB; USPAT	OR	ON	2006/08/04 15:44
S8	0	asymetric\$ same plasma same dens\$ and deposit\$	US-PGPUB; USPAT	OR	ON	2006/08/04 15:44
S9	0	symetric\$ same plasma same dens\$ and deposit\$	US-PGPUB; USPAT	OR	ON	2006/08/04 15:44
S10	4349	symetric\$	US-PGPUB; USPAT	OR	ON	2006/08/04 15:44
S11	2232	asymetric\$	US-PGPUB; USPAT	OR	ON	2006/08/04 15:44
S12	2	asymetric\$ same (plasma plasmoid)	US-PGPUB; USPAT	OR	ON	2006/08/04 15:46
S13	3	US-5637966-\$.DID. OR US-6523493-\$.DID. OR US-6087778-\$.DID.	US-PGPUB; USPAT	OR	ON	2006/08/04 15:47

## EAST Search History

S14	4918	rotat\$ with (plasma plasmoid)	US-PGPUB; USPAT	OR	ON	2006/08/04 15:47
S15	740	rotat\$ with (plasma plasmoid) same densit\$	US-PGPUB; USPAT	OR	ON	2006/08/04 15:48
S16	460	rotat\$ with (plasma plasmoid) same densit\$ and deposit\$	US-PGPUB; USPAT	OR	ON	2006/08/04 18:17
S17	66	rotat\$ with (plasma plasmoid) same densit\$ with (first second different higher lower) and deposit\$	US-PGPUB; USPAT	OR	ON	2006/08/04 19:46
S18	62	plasmoid	US-PGPUB; USPAT	OR	ON	2006/08/04 19:46
S19	2	plasmoid and lobe	US-PGPUB; USPAT	OR	ON	2006/08/07 10:44
S20	1132	plasma with ald	US-PGPUB; USPAT	OR	ON	2006/08/07 10:52
S21	304	plasma with ald and plasma with (dens\$4)	US-PGPUB; USPAT	OR	ON	2006/08/07 10:53
S22	71	plasma with ald and plasma with (dens\$4) and rotat\$	US-PGPUB; USPAT	OR	ON	2006/08/07 12:53
S23	193	plasma with (uniform\$3 nonuniform\$) and ald	US-PGPUB; USPAT	OR	ON	2006/08/07 12:54
S24	41	plasma with (uniform\$3 nonuniform\$) with dens\$4 and ald	US-PGPUB; USPAT	OR	ON	2006/08/07 13:21
S25	850	plasma with (non adj uniform\$3 nonuniform\$) same dens\$4	US-PGPUB; USPAT	OR	ON	2006/08/07 13:22
S26	578	plasma with (non adj uniform\$3 nonuniform\$) with dens\$4	US-PGPUB; USPAT	OR	ON	2006/08/07 13:25
S27	6	plasma with (non adj uniform\$3 nonuniform\$) with dens\$4 and ald	US-PGPUB; USPAT	OR	ON	2006/08/07 13:31
S28	62	plasmoid	US-PGPUB; USPAT	OR	ON	2006/08/07 13:31
S29	28	plasmoid and deposit\$	US-PGPUB; USPAT	OR	ON	2006/08/07 13:39
S30	1	"4384938".pn.	US-PGPUB; USPAT	OR	ON	2006/08/07 13:40
S31	32	("3730873"   "4209357"   "4264393"   "4297162"   "4340461"   "4352974").PN. OR ("4384938").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/08/07 14:30
S32	24	plasmoid and (cvd ald deposit\$)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/08/07 14:33
S33	2	plasmoid and (cvd ald deposit\$)	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/08/07 14:34

## EAST Search History

S34	0	"09792055"	USPAT	OR	OFF	2006/08/07 16:54
S35	1	"09792055"	US-PGPUB; USPAT	OR	OFF	2006/08/07 16:55
S36	3553	"20010226"	US-PGPUB; USPAT	OR	OFF	2006/08/07 16:55
S37	2115	"20010226"	US-PGPUB	OR	OFF	2006/08/07 16:55
S38	13	"792055"	US-PGPUB; USPAT	OR	OFF	2006/08/07 18:50
S39	8	plasmoid and deposition	US-PGPUB; USPAT	OR	OFF	2006/08/07 18:51
S40	10	plasmoid and deposition	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/08/07 18:51
S41	3	("6043608").PN. OR ("6355573"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/08/07 18:55
S42	907	concave with antenna	US-PGPUB; USPAT; USOCR	OR	OFF	2006/08/07 18:56
S43	20	concave with antenna same plasm\$	US-PGPUB; USPAT; USOCR	OR	OFF	2006/08/07 18:56
S44	23	concave with antenna and plasm\$ and deposit\$	US-PGPUB; USPAT; USOCR	OR	OFF	2006/08/07 21:52
S45	3525	multiple same plasma and (cvd ald)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/08/07 21:53
S46	1180	multiple with plasma and (cvd ald)	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/07 21:55
S47	425	"438"/\$.ccls. and multiple with plasma and (cvd ald)	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/07 22:23
S48	18	"438"/\$.ccls. and multiple with plasma same zone and (cvd ald)	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/07 22:23
S49	28	"438"/\$.ccls. and multiple same plasma same zone and (cvd ald)	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/08 09:11

## EAST Search History

S50	20	("3873884"   "4368092"   "4918031"   "4943345"   "5234529"   "5241245"   "5304282"   "5361016"   "5405480"   "5431968"   "5534231"   "5571366"   "5573595"   "5591493"   "5637961"   "5965034"   "6017221"   "6127275").PN. OR ("6858112").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/08/07 22:38
S51	142198	"438"/\$.ccls. and multiple same plasma same regionand (cvd ald)	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/08 09:11
S52	162	"438"/\$.ccls. and multiple same plasma same region and (cvd ald)	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/08 09:13
S53	63	"438"/\$.ccls. and multiple with plasma same region and (cvd ald)	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/08 09:16
S54	49	"438"/\$.ccls. and multiple same plasma with region and (cvd ald)	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/08 09:28
S55	2	"438"/\$.ccls. and plasmoid\$	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/08 09:33
S56	80	plasmoid\$	US-PGPUB; USPAT; USOCR	OR	ON	2006/08/08 09:33
S57	102	plasmoid\$	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/08/08 09:54
S58	3	plasmoid\$ and (ald cvd)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/08/08 09:34
S59	3	("6043608").PN. OR ("6355573").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/08/08 09:43
S60	1068	plasm\$ same (stabl\$ instabl\$ untabl\$) with (zone region)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/08/08 09:44
S61	222	plasm\$ same (stabl\$ instabl\$ untabl\$) with (zone region) and (cvd ald)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/08/08 09:45

## EAST Search History

S62	148	plasm\$ with (stabl\$ instabl\$ unstabl\$) with (zone region) and (cvd ald)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/08/08 09:45
S63	35	plasmoid\$ and deposit\$	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/08/08 09:55
S64	35	("2972695"   "3555347"   "3719582"   "3783231"   "3793179"   "4048436"   "4190760"   "4194106").PN. OR ("4512867"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/08/08 10:05
S65	2074	pulsed with plasma	USPAT	OR	OFF	2006/08/08 15:03
S66	840	pulsed with plasma and plasma with dens\$4	USPAT	OR	OFF	2006/08/08 15:03
S67	253	pulsed with plasma same plasma with dens\$4	USPAT	OR	OFF	2006/08/08 15:03
S68	15	pulsed with plasma and plasma with dens\$4 and ald	USPAT	OR	OFF	2006/08/08 15:07
S69	212	pulsed with plasma and plasma with dens\$4 and cvd	USPAT	OR	OFF	2006/08/08 15:08
S70	75	pulsed with plasma same plasma with dens\$4 and cvd	USPAT	OR	OFF	2006/08/08 15:15
S71	1105	helicon	USPAT	OR	OFF	2006/08/08 15:15
S72	445	helicon with plasma same density	USPAT	OR	OFF	2006/08/08 15:15
S73	263	helicon with plasma same density and cvd	USPAT	OR	OFF	2006/08/08 15:26
S74	1081	stable with plasma and (ald cvd)	USPAT	OR	OFF	2006/08/08 15:26
S75	214	stable with plasma same dens\$ and (ald cvd)	USPAT	OR	OFF	2006/08/08 15:32
S76	22	stable with plasma with (region node zone) same dens\$ and (ald cvd)	US-PGPUB; USPAT	OR	ON	2006/08/08 15:43
S77	7	"438"/\$.ccls. and stable with plasma with (region node zone) same dens\$ and (ald cvd)	US-PGPUB; USPAT	OR	ON	2006/08/08 15:56
S78	2	"438"/\$.ccls. and plasmoid\$	US-PGPUB; USPAT	OR	ON	2006/08/08 16:14
S79	46038	"438"/\$.ccls. and plasm\$	US-PGPUB; USPAT	OR	ON	2006/08/08 16:17
S80	5	kadlee	US-PGPUB; USPAT	OR	ON	2006/08/08 16:17
S81	107	plasma same lobe	USPAT	OR	OFF	2006/08/08 16:54

## EAST Search History

S82	191	plasma same lobe	US-PGPUB; USPAT	OR	OFF	2006/08/08 16:54
S83	86	plasma same lobe and deposit\$	US-PGPUB; USPAT	OR	OFF	2006/08/08 16:55
S84	28	plasma same lobe and deposit\$ not protein\$4	US-PGPUB; USPAT	OR	OFF	2006/08/08 17:16
S85	605	field with pattern same plasma and deposit\$	US-PGPUB; USPAT	OR	OFF	2006/08/08 17:16
S86	750	field with pattern same plasma and deposit\$	US-PGPUB; USPAT	OR	ON	2006/08/08 17:16
S87	1338	438/714.ccls. 438/798.ccls.	US-PGPUB; USPAT	OR	OFF	2006/08/09 10:56
S88	917	438/714.ccls.	US-PGPUB; USPAT	OR	OFF	2006/08/09 10:56
S89	424	438/798.ccls.	US-PGPUB; USPAT	OR	OFF	2006/08/09 10:56
S90	477	(438/714.ccls. 438/798.ccls.) and plasma with dens\$	US-PGPUB; USPAT	OR	OFF	2006/08/09 11:32
S91	0	(438/714.ccls. 438/798.ccls.) and plasma same asyemetric\$	US-PGPUB; USPAT	OR	OFF	2006/08/09 11:33
S92	12	(438/714.ccls. 438/798.ccls.) and plasma same asymmetric\$	US-PGPUB; USPAT	OR	ON	2006/08/09 14:15
S93	269	117/88.ccls.	USPAT	OR	OFF	2006/09/13 21:57
S94	4955	118/715,725,728-730.ccls.	USPAT	OR	OFF	2006/09/13 21:56
S95	5108	438/637,672,699,676,641,674,677, 485,761,762,763.ccls.	USPAT	OR	OFF	2006/09/13 21:57
S96	72	117/88.ccls. and plasma	USPAT	OR	OFF	2006/09/13 21:57
S97	15	117/88.ccls. and plasma same (concentration dens\$)	USPAT	OR	OFF	2006/09/13 21:57
S98	30	117/88.ccls. and plasma same (concentration dens\$ pressure)	USPAT	OR	OFF	2006/09/13 22:45
S99	30	117/88.ccls. and plasma same (concentration dens\$ pressure)	USPAT	OR	ON	2006/09/13 21:57
S10 0	33	117/88.ccls. and plasma same (concentration dens\$ pressure)	US-PGPUB; USPAT	OR	ON	2006/09/13 22:44
S10 1	32	117/88.ccls. and plasma same (concentration dens\$ pressure) and substrate	US-PGPUB; USPAT	OR	ON	2006/09/13 22:44
S10 2	29	117/88.ccls. and plasma same (concentration dens\$ pressure) and substrate	USPAT	OR	OFF	2006/09/13 22:45
S10 3	10	ald and precursor same ligand same (chlor\$4 halogen bromi\$) same (metal copper tantalum tungsten )	USPAT	OR	OFF	2006/09/13 23:31

## EAST Search History

S10 4	10	rotat\$ with plasma and rotat\$ with substrate and ald	USPAT	OR	OFF	2006/09/14 00:30
S10 5	0	rotat\$ with plasma same ald	USPAT	OR	OFF	2006/09/14 00:30
S10 6	9	rotat\$ with plasma and plasma same ald	USPAT	OR	OFF	2006/09/14 00:30
S10 7	41	(US-20060121744-\$ or US-20020060363-\$ or US-20020076481-\$ or US-20020146511-\$ or US-20030213560-\$ or US-20040026374-\$ or US-20050221002-\$ or US-20060118043-\$ or US-20030091482-\$ or US-20050156530-\$ or US-20050199485-\$ or US-20050238890-\$ or US-20060063390-\$ or US-20040028837-\$ or US-20040085246-\$ or US-20040140778-\$ or US-20040168771-\$ or US-20060046477-\$ or US-20060141290-\$).did. or (US-4384938-\$ or US-6858112-\$ or US-6231776-\$ or US-5464499-\$ or US-5534231-\$ or US-6960537-\$ or US-5439715-\$ or US-5795452-\$ or US-5902649-\$ or US-6152071-\$ or US-6220202-\$ or US-6829056-\$ or US-6936144-\$ or US-6087778-\$ or US-7015413-\$ or US-6355573-\$ or US-4595484-\$ or US-4512867-\$ or US-6835414-\$ or US-6528430-\$ or US-6346477-\$ or US-6713873-\$). did.	US-PGPUB; USPAT	OR	OFF	2006/09/14 00:32

## EAST Search History

S10 8	41	(US-20060121744-\$ or US-20020060363-\$ or US-20020076481-\$ or US-20020146511-\$ or US-20030213560-\$ or US-20040026374-\$ or US-20050221002-\$ or US-20060118043-\$ or US-20030091482-\$ or US-20050156530-\$ or US-20050199485-\$ or US-20050238890-\$ or US-20060063390-\$ or US-20040028837-\$ or US-20040085246-\$ or US-20040140778-\$ or US-20040168771-\$ or US-20060046477-\$ or US-20060141290-\$).did. or (US-4384938-\$ or US-6858112-\$ or US-6231776-\$ or US-5464499-\$ or US-5534231-\$ or US-6960537-\$ or US-5439715-\$ or US-5795452-\$ or US-5902649-\$ or US-6152071-\$ or US-6220202-\$ or US-6829056-\$ or US-6936144-\$ or US-6087778-\$ or US-7015413-\$ or US-6355573-\$ or US-4595484-\$ or US-4512867-\$ or US-6835414-\$ or US-6528430-\$ or US-6346477-\$ or US-6713873-\$). did.	US-PGPUB; USPAT	OR	OFF	2006/09/14 00:32
----------	----	--	--------------------	----	-----	------------------



## EAST Search History

S10 9	41	((US-20060121744-\$ or US-20020060363-\$ or US-20020076481-\$ or US-20020146511-\$ or US-20030213560-\$ or US-20040026374-\$ or US-20050221002-\$ or US-20060118043-\$ or US-20030091482-\$ or US-20050156530-\$ or US-20050199485-\$ or US-20050238890-\$ or US-20060063390-\$ or US-20040028837-\$ or US-20040085246-\$ or US-20040140778-\$ or US-20040168771-\$ or US-20060046477-\$ or US-20060141290-\$).did. or (US-4384938-\$ or US-6858112-\$ or US-6231776-\$ or US-5464499-\$ or US-5534231-\$ or US-6960537-\$ or US-5439715-\$ or US-5795452-\$ or US-5902649-\$ or US-6152071-\$ or US-6220202-\$ or US-6829056-\$ or US-6936144-\$ or US-6087778-\$ or US-7015413-\$ or US-6355573-\$ or US-4595484-\$ or US-4512867-\$ or US-6835414-\$ or US-6528430-\$ or US-6346477-\$ or US-6713873-\$). did. )	US-PGPUB; USPAT	OR	OFF	2006/09/14 00:32
----------	----	---	--------------------	----	-----	------------------

## EAST Search History

S11 0	27	((US-20060121744-\$ or US-20020060363-\$ or US-20020076481-\$ or US-20020146511-\$ or US-20030213560-\$ or US-20040026374-\$ or US-20050221002-\$ or US-20060118043-\$ or US-20030091482-\$ or US-20050156530-\$ or US-20050199485-\$ or US-20050238890-\$ or US-20060063390-\$ or US-20040028837-\$ or US-20040085246-\$ or US-20040140778-\$ or US-20040168771-\$ or US-20060046477-\$ or US-20060141290-\$).did. or (US-4384938-\$ or US-6858112-\$ or US-6231776-\$ or US-5464499-\$ or US-5534231-\$ or US-6960537-\$ or US-5439715-\$ or US-5795452-\$ or US-5902649-\$ or US-6152071-\$ or US-6220202-\$ or US-6829056-\$ or US-6936144-\$ or US-6087778-\$ or US-7015413-\$ or US-6355573-\$ or US-4595484-\$ or US-4512867-\$ or US-6835414-\$ or US-6528430-\$ or US-6346477-\$ or US-6713873-\$). did. ) and rotat\$	US-PGPUB; USPAT	OR	OFF	2006/09/14 00:39
S11 1	39	rotat\$ with substrate same plasma and ald	US-PGPUB; USPAT	OR	OFF	2006/09/14 00:46
S11 2	22320	group adj III	US-PGPUB; USPAT	OR	OFF	2006/09/14 08:06
S11 3	11136	group adj III and (mg magnesium)	US-PGPUB; USPAT	OR	OFF	2006/09/14 08:06
S11 4	2246	group adj III and (mg magnesium) and nitride and silicon	US-PGPUB; USPAT	OR	ON	2006/09/14 08:09
S11 5	31166	(algan aluminum adj gallium aj nitride group adj III) and (mg magnesium) and nitride and silicon	US-PGPUB; USPAT	OR	ON	2006/09/14 08:09
S11 6	36044	(algan aluminum adj gallium aj nitride group adj III) and (mg magnesium) and silicon	US-PGPUB; USPAT	OR	ON	2006/09/14 08:10
S11 7	7500	(algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (mg magnesium) and silicon	US-PGPUB; USPAT	OR	ON	2006/09/14 08:11

## EAST Search History

S11 8	529	(algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (mg magnesium) same acceptor and silicon	US-PGPUB; USPAT	OR	ON	2006/09/14 08:11
S11 9	184	(algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (mg magnesium) same acceptor and silicon same donor	US-PGPUB; USPAT	OR	ON	2006/09/14 08:14
S12 0	2	(algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (mg magnesium) same acceptor same intermedi\$ and silicon same donor	US-PGPUB; USPAT	OR	ON	2006/09/14 08:18
S12 1	62	(algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (mg magnesium) same acceptor same between and silicon same donor	US-PGPUB; USPAT	OR	ON	2006/09/14 08:30
S12 2	17	"059046"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/09/14 08:28
S12 3	575	(algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (mg magnesium) same intermediate	US-PGPUB; USPAT	OR	ON	2006/09/14 08:32
S12 4	240115	("438"/\$.ccls. "257"/\$.ccls. )(algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (mg magnesium) same intermediate	US-PGPUB; USPAT	OR	ON	2006/09/14 19:21
S12 5	121	("438"/\$.ccls. "257"/\$.ccls. )and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (mg magnesium) same intermediate	US-PGPUB; USPAT	OR	ON	2006/09/14 08:32
S12 6	121	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (mg magnesium) same intermediate	US-PGPUB; USPAT	OR	ON	2006/09/14 08:45
S12 7	1162	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (mg magnesium si silicon) same intermediate	US-PGPUB; USPAT	OR	ON	2006/09/14 08:46

## EAST Search History

S12 8	804	("438"/\$.ccls. "257"/\$.ccls. ) and (alcan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (mg magnesium si silicon) with intermediate	US-PGPUB; USPAT	OR	ON	2006/09/14 08:48
S12 9	758	("438"/\$.ccls. "257"/\$.ccls. ) and (alcan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (si silicon) with intermediate	US-PGPUB; USPAT	OR	ON	2006/09/14 08:48
S13 0	28	("438"/\$.ccls. "257"/\$.ccls. ) and (alcan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (si silicon) with intermediate same (mg magnesium)	US-PGPUB; USPAT	OR	ON	2006/09/14 09:55
S13 1	211	("438"/\$.ccls. "257"/\$.ccls. ) and (alcan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and hole with concentration same (mg magnesium)	US-PGPUB; USPAT	OR	ON	2006/09/14 08:58
S13 2	1091	("438"/\$.ccls. "257"/\$.ccls. ) and (alcan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (si silicon) with layer with barrier	US-PGPUB; USPAT	OR	ON	2006/09/14 09:57
S13 3	231	("438"/\$.ccls. "257"/\$.ccls. ) and (alcan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (si silicon) with layer with barrier same (mg magnesium)	US-PGPUB; USPAT	OR	ON	2006/09/14 10:01
S13 4	162	("438"/\$.ccls. "257"/\$.ccls. ) and (alcan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (si silicon) with barrier with (mg magnesium)	US-PGPUB; USPAT	OR	ON	2006/09/14 10:04
S13 5	603	("438"/\$.ccls. "257"/\$.ccls. ) and (alcan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding same contact same p same (si silicon)	US-PGPUB; USPAT	OR	ON	2006/09/14 10:06
S13 6	531	("438"/\$.ccls. "257"/\$.ccls. ) and (alcan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding with p same contact with p same (si silicon)	US-PGPUB; USPAT	OR	ON	2006/09/14 10:08

## EAST Search History

S13 7	87	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding with p same contact with p same (si silicon) with (intermediate barrier)	US-PGPUB; USPAT	OR	ON	2006/09/14 13:56
S13 8	249	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding with p same contact with p same (si silicon) with (intermediate barrier buffer)	US-PGPUB; USPAT	OR	ON	2006/09/14 14:10
S13 9	217	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding with p same contact with p same (si silicon) with (intermediate barrier buffer) with (cladding contact)	US-PGPUB; USPAT	OR	ON	2006/09/14 12:46
S14 0	170	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding with p same contact with p same (si silicon) with (intermediate barrier buffer) with (cladding with contact)	US-PGPUB; USPAT	OR	ON	2006/09/14 13:20
S14 1	0	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding with p same contact with p same (si silicon) with (intermediate barrier buffer) with (compens\$)	US-PGPUB; USPAT	OR	ON	2006/09/14 13:25
S14 2	8	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding with p same contact with p same (intermediate barrier buffer) with (compens\$)	US-PGPUB; USPAT	OR	ON	2006/09/14 14:09
S14 3	249	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding with p same contact with p same (intermediate barrier buffer) with (si silicon)	US-PGPUB; USPAT	OR	ON	2006/09/14 13:38
S14 4	9	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and compensat\$ with barrier with (si silicon)	US-PGPUB; USPAT	OR	ON	2006/09/14 13:33

## EAST Search History

S14 5	830	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding with p same contact with p same (intermediate barrier buffer)	US-PGPUB; USPAT	OR	ON	2006/09/14 13:39
S14 6	333	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding with p same contact with p same (si silicon ) with (doped dopant dope ) with layer	US-PGPUB; USPAT	OR	ON	2006/09/14 13:41
S14 7	2	US-5945689-\$.DID. OR US-62884161-\$.DID. OR US-6620643-\$.DID.	US-PGPUB; USPAT	OR	ON	2006/09/14 13:41
S14 8	0	("438"/\$.ccls. "257"/\$.ccls. ) and compensated with intermediate with cladding with contact	US-PGPUB; USPAT	OR	ON	2006/09/14 13:57
S14 9	1	("438"/\$.ccls. "257"/\$.ccls. ) and compensated with intermediate same intermediate with cladding with contact	US-PGPUB; USPAT	OR	ON	2006/09/14 13:58
S15 0	235	("438"/\$.ccls. "257"/\$.ccls. ) and undopedwith intermediate same intermediate with cladding with contact	US-PGPUB; USPAT	OR	ON	2006/09/14 13:58
S15 1	14	("438"/\$.ccls. "257"/\$.ccls. ) and undoped with intermediate same intermediate with cladding with contact	US-PGPUB; USPAT	OR	ON	2006/09/14 14:06
S15 2	1	("2002/0104997").URPN.	USPAT	OR	OFF	2006/09/14 14:02
S15 3	1	("438"/\$.ccls. "257"/\$.ccls. ) and donor with intermediate same intermediate with cladding with contact	US-PGPUB; USPAT	OR	ON	2006/09/14 14:07
S15 4	431	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding same contact and current with block\$4	US-PGPUB; USPAT	OR	ON	2006/09/14 14:11
S15 5	243	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding same contact same current with block\$4	US-PGPUB; USPAT	OR	ON	2006/09/14 14:12

## EAST Search History

S15 6	4	("438"/\$.ccls. "257"/\$.ccls. ) and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and cladding same contact same current with block\$4 same intermediate	US-PGPUB; USPAT	OR	ON	2006/09/14 14:13
S15 7	10	("5821555"   "5889295").PN. OR ("6064079").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/09/14 14:14
S15 8	25	("5182670"   "5290393"   "5393993"   "5656832"   "5874747"   "5880486"   "5900647"   "5903017"   "5929466"   "5945689"   "5953581"   "5959307"   "5970080").PN. OR ("6242764").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/09/14 14:50
S15 9	6	("5684309"   "5777350"   "5874747").PN. OR ("6620643").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/09/14 17:23
S16 0	1032	(co cobalt) same (au gold) same (contact electrode) and (va vanadium) same (au gold) same (al aluminum) same (contact electrode)	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/14 17:25
S16 1	73	(co cobalt) same (au gold) same (contact electrode) and (va vanadium) same (au gold) same (al aluminum) same (contact electrode) and (mqw quantum adj well)	US-PGPUB; USPAT; USOCR	OR	ON	2006/09/14 17:27
S16 2	239680	("438"/\$.ccls. "257"/\$.ccls. )(algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (mg magnesium) same (si silicon) same modulat\$	US-PGPUB; USPAT	OR	ON	2006/09/14 19:22
S16 3	23	("438"/\$.ccls. "257"/\$.ccls. )and (algan aluminum adj gallium adj nitride gallium adj nitride gan group adj III) and (mg magnesium) same (si silicon) same modulat\$	US-PGPUB; USPAT	OR	ON	2006/09/14 19:25
S16 4	2	"6872986"	US-PGPUB; USPAT	OR	ON	2006/09/14 19:25
S16 5	1067	compensated with intermediate	USPAT	OR	OFF	2007/02/05 22:30
S16 6	5	compensated with intermediate and nitride same (light laser)	US-PGPUB; USPAT	OR	ON	2007/02/05 22:31
S16 7	207	concentration with intermediate and nitride same (light laser)	US-PGPUB; USPAT	OR	ON	2007/02/05 22:31
S16 8	2	concentration with intermediate same compensat\$ and nitride same (light laser)	US-PGPUB; USPAT	OR	ON	2007/02/05 22:42

## EAST Search History

S16 9	3	concentration same intermediate same compensat\$ and nitride same (light laser)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/02/05 22:35
S17 0	134	intermediate same compensat\$ and nitride same (light laser)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/02/05 22:36
S17 1	18	intermediate same compensat\$ same dop\$4 and nitride same (light laser)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/02/05 22:36
S17 2	22	si with mg with intermediate and nitride same (light laser)	US-PGPUB; USPAT	OR	ON	2007/02/05 22:43
S17 3	72	mg with diffus\$ same nitride	USPAT	OR	OFF	2007/02/06 10:25
S17 4	42	mg with diffus\$ same intermediate	USPAT	OR	OFF	2007/02/06 10:36
S17 5	0	10/542780	USPAT	OR	OFF	2007/02/06 10:36
S17 6	1	10/542780	US-PGPUB; USPAT	OR	OFF	2007/02/06 10:48
S17 7	0	"148507"	JPO	OR	OFF	2007/02/06 10:49
S17 8	16	"148507"	US-PGPUB; USPAT; JPO	OR	ON	2007/02/06 12:09
S17 9	23	"115610"	US-PGPUB; USPAT; JPO	OR	ON	2007/02/06 12:09
S18 0	0	10/542780	USPAT	OR	OFF	2007/06/26 16:33
S18 1	1	10/542780	US-PGPUB; USPAT	OR	OFF	2007/06/26 16:34
S18 2	1	10/542780 and concentration	US-PGPUB; USPAT	OR	OFF	2007/06/27 10:27
S18 3	0	10/542780 and concentration with based with activation	US-PGPUB; USPAT	OR	OFF	2007/06/27 10:27
S18 4	0	10/542780 and concentration same based same activation	US-PGPUB; USPAT	OR	OFF	2007/06/27 10:27
S18 5	0	10/542780 and based same activation	US-PGPUB; USPAT	OR	OFF	2007/06/27 10:27
S18 6	1	10/542780 and concentration same activation	US-PGPUB; USPAT	OR	OFF	2007/06/27 10:27
S18 7	0	("2002/0175332").URPN.	USPAT	OR	OFF	2007/11/25 16:27
S18 8	0	"10542780"	USPAT	OR	OFF	2007/11/25 19:17



## EAST Search History

S18 9	1	"10542780"	US-PGPUB; USPAT	OR	OFF	2007/11/25 16:54
S19 0	230	"Al.sub.0.15Ga.sub.0.85N"	US-PGPUB; USPAT	OR	OFF	2007/11/25 16:54
S19 1	163	"Al.sub.0.15Ga.sub.0.85N" same type	US-PGPUB; USPAT	OR	OFF	2007/11/25 16:54
S19 2	163	"Al.sub.0.15Ga.sub.0.85N" same type	US-PGPUB; USPAT	OR	ON	2007/11/25 16:54
S19 3	131	"Al.sub.0.15Ga.sub.0.85N" same type with p	US-PGPUB; USPAT	OR	ON	2007/11/25 17:31
S19 4	54	"Al.sub.0.15Ga.sub.0.85N" same type with p and @ad<="20030916"	US-PGPUB; USPAT	OR	ON	2007/11/25 17:44
S19 5	4407562	"Al.sub.0.15Ga.sub.0.85N" same type with p same intermedi\$and @ad<="20030916"	US-PGPUB; USPAT	OR	ON	2007/11/25 17:44
S19 6	14	"Al.sub.0.15Ga.sub.0.85N" same type with p and intermedi\$ and @ad<="20030916"	US-PGPUB; USPAT	OR	ON	2007/11/25 18:20
S19 7	25	"Al.sub.0.15Ga.sub.0.85N" same type with p same cladding and @ad<="20030916"	US-PGPUB; USPAT	OR	ON	2007/11/25 18:57
S19 8	16	"6456640"	US-PGPUB; USPAT	OR	ON	2007/11/25 18:57
S19 9	641186	concentration	USPAT	OR	OFF	2007/11/25 19:18
S20 0	25844	concentration with (si silicon)	USPAT	OR	OFF	2007/11/25 19:18
S20 1	28749	concentration with (si donor silicon)	USPAT	OR	OFF	2007/11/25 19:18
S20 2	2647	concentration with (si donor silicon) same (current blocking)	USPAT	OR	OFF	2007/11/25 19:19
S20 3	3408	concentration with (si donor silicon) same (current block\$3)	USPAT	OR	ON	2007/11/25 19:19
S20 4	99	concentration with (si donor silicon) same (current with block\$3)	USPAT	OR	ON	2007/11/25 19:19
S20 5	134	concentration with (si donor silicon) same (current with block\$3)	US-PGPUB; USPAT	OR	ON	2007/11/25 19:20
S20 7	58	concentration with (si donor silicon) same (current with block\$3) same n and cladding	US-PGPUB; USPAT	OR	ON	2007/11/26 15:51
S20 8	53	concentration with (si donor silicon) same (current with block\$3) same n and cladding and @ad<="20030916"	US-PGPUB; USPAT	OR	ON	2007/11/26 15:08

## EAST Search History

S20 9	5	concentration with (si donor silicon) same (current with block\$3) same n and cladding same gan and @ad<="20030916"	US-PGPUB; USPAT	OR	ON	2007/11/26 13:33
----------	---	--	--------------------	----	----	------------------